

A new Species of the Genus *Neoblattella* from Costa Rica (Orthoptera, Blattidae).

By MORGAN HEBARD, Philadelphia, Pa.

In studying material of the family Blattidae, accidentally introduced in the United States, an undescribed species of *Neoblattella* has been encountered. As we desired to describe the species, if possible, from material taken at a locality at which it is native, we have gone through the undetermined material which we have and have found the additional series recorded below.

Neoblattella fratercula new species.

This species is apparently rather closely allied to *N. brunneriana*. When compared with specimens before us which we believe to represent that species¹, the present insect is readily distinguished by its smaller size, tegmina and wings with cross-veinlets less strongly indicated², slightly iridescent wings and very distinctive male genitalia.³

TYPE: ♂ ; Isla de Cocos, Costa Rica, January, 1902. (P. Biolley.) [Acad. Nat. Sci. Phila., Type No. 5298.]

Size medium small for the group, smallest of the more nearly related species; form rather slender. Interocular space wide; ocellar spots weakly defined. Maxillary palpi very elongate; third and fourth joints subequal in length; fifth (distal) joint about two-thirds as long as fourth, obliquely truncate to near its base.

¹ From San Rafael in Vera Cruz, Mexico; Port Limon, Reventazon, Juan Viñas and Azahar near Cartago, Costa Rica.

² In *brunneriana* very numerous and conspicuously defined in darker brown distad, both on tegmina and wings.

³ The only male of *brunneriana* before us is from Port Limon, Costa Rica. It has the sides of the subgenital plate nearly vertical and suddenly abruptly truncate, leaving mesad a quadrate aperture; the bottom margin of which (representing the mesal portion of the distal margin of this plate) is irregularly truncate, with a small mesal knoblike projection, slightly longer than wide, and styles briefly distant on each side, of almost the same size and form as this projection. From within the plate, near this margin, spring aciculate, chitinous, somewhat decurved projections, which reach a short distance beyond the margin of the plate, projecting from the narrow channels between the styles and the small median projection of the distal margin.

Pronotum with disk very weakly raised, the whole surface in nearly the same plane; cephalic margin moderately truncate, weakly convex; angles broadly rounded, the cephalic more so than the caudal; caudal margin truncate, very weakly convex.

Tegmina very delicate; with seven longitudinal discoidal sectors (this including the median vein, all its branches and the production of the ulnar vein); cross veinlets very weak; wings very delicate; six of the costal veins rather heavily clubbed distad, ulnar vein with four branches, intercalated triangle small, axillary vein with three branches which are directed away from the costal margin.

Abdomen with dorsal surface little modified; sixth segment more produced than the others, with distal margin broadly and weakly convex lateral and broadly and more decidedly concave mesad; seventh segment somewhat narrower, with distal margin sinuous; eighth segment still

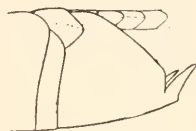


Fig. 1.—Lateral outline of subgenital plate of type. ♂. (Greatly enlarged).

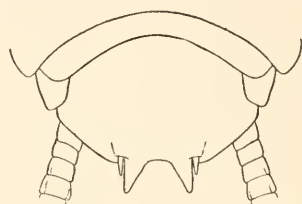


Fig. 2.—Ventral outline of subgenital plate of type. ♂. (Greatly enlarged).

narrower and normally almost completely concealed, broadly cleft mesad; ninth segment very much narrower, very little produced; tenth segment (supra-anal plate) distinctly transverse, triangularly weakly produced with blunt apex. Subgenital plate with lateral margins weakly elevated and declivent distad forming small and narrow emarginations at their juncture with the mesal portion, within which emarginations are situated the styles which are minute almost microscopic pegs with apices acute; the remaining mesal portion of the plate is produced latero-distad in acute-angulate weakly divergent thin plates, the remaining very brief mesal portion of the margin between these transverse.

Limbs very delicate with delicate spines; ventro-cephalic margin of cephalic femora with long, slender, widely spaced spines in a little more than proximal half, which slightly decrease in size distad, remaining distal portion with very much smaller and more closely set spines.

Allotype: Same data as type. [Acad. Nat. Sci. Phila.]

Agrees with male except in following features. Dorsal abdominal segments not differing greatly in outline, supra-anal plate very small, strongly transverse, weakly triangularly produced, with lateral margins weakly convex and apex briefly and very shallowly notched. Subgeni-

tal plate very large and strongly produced, in general form scoop-shaped; distal margin strongly convex latero-proximad, then nearly straight for a decidedly greater distance to broadly convex apex.

Measurements (in millimeters).

	Length of body	Length of pronotum	Width of pronotum	Length of tegmen	Width of tegmen
♂♂					
TYPE.....	8.3	2.4	3.3	10.7	3.1
<i>Paratypes</i> (5).....	8.-9.3	2.3-2.4	3.2-3.3	10.-10.3	2.8-3.
Lincoln, Nebr.....	9.4	2.7	3.7	11.4	3.4
♀♀					
<i>Allotype</i>	8.5	2.6	3.4	10.2	3.
<i>Paratypes</i> (5).....	9.5-10.8	2.7-2.8	3.4-3.6	9.8-10.3	3.
S. S. Tenadores (2).....	10.10.2	2.9	3.7-3.8	11.1-11.3	3.4

The specimens taken away from their native habitat were almost certainly from the east coast of Central America, those from the S. S. Tenadores were taken on at either Bocas del Toro, Panama, or Limon, Costa Rica. The measurements would indicate that the species on the Isla de Cocos averages somewhat smaller than material from the mainland.

Coloration: General color warm buff⁴, lateral margins of pronotum and all of the tegmina clear translucent warm buff; disk of pronotum antimony yellow, with a few slightly darker (buckthorn brown) markings and very few much darker (mummy brown) minute dots. Wings hyaline with a very slight iridescence, veins and distal cross-veinlets translucent very pale brown. Head warm buff with a very slightly darker diffused broad brown band ventrad between the eyes, a similar but much narrower band between the ocellar spots and on the face traces of two interrupted very narrow bands of the same shade. Abdomen buckthorn brown, ventrad with a large diffused dark brown marking proximad and with a dark brown dot laterad on each segment. Antennae and limbs warm buff.

Specimens Examined: 15; 7 males, 8 females.

Isla de Cocos, Costa Rica, January, 1902 (P. Biolley), 6 ♂, 6 ♀, TYPE, *allotype*, *paratypes*, [A. N. S. P. and Hebard Cln.]

Material adventive in United States.⁵

Lincoln, Nebraska, July 15 (introduced in bananas, probably from Central America), 1 ♂ [Hebard Cln.].

S. S. Tenadores, en route New York, N. Y., to Jamaica, October 19, 1913 (Hebard; dead in hold), 2 ♀ [Hebard Cln.]

⁴ These colors are all taken from Ridgway's Color Nomenclature.

⁵ In these specimens the eyes are slightly wider and the abdominal colors slightly paler than in the typical series.